IN THE CLAIMS:

Claim 1 (currently amended): A piezoelectric oscillator, wherein, in an oscillator including a piezoelectric resonator, an amplifier, and a variable-capacitance element, the variable-capacitance element is a MOS construction type capacitance element, one terminal of the MOS construction type capacitance element is applied with an alternating current voltage, whose intermediate voltage is a positive (plus) or negative (minus) V voltage, and the other terminal of the MOS construction type capacitance element is applied with a control voltage within a range whose intermediate value is the V voltage and of a same polarity ~~of~~ as the V voltage and at least one terminal of the MOS construction type capacitance element is connected to ground via a capacitor.

Claim 2 (currently amended): A piezoelectric oscillator, wherein, in an inverter piezoelectric oscillator in which a piezoelectric resonator is connected between an input terminal and an output terminal of an inverter amplifier; and divisional capacitors C1 and C2 are connected between respective ends of the piezoelectric resonator and the ground, and wherein by inserting a MOS construction type capacitance element in series with the piezoelectric resonator, one end of the MOS construction type capacitance element is applied with a bias voltage which is the positive (plus) or negative (minus) V voltage at an output end or input end of the inverter amplifier and the other end of the MOS construction type capacitance element is supplied with a control voltage that varies within a range whose intermediate value is the V voltage and of a same polarity as the V voltage, and at least one terminal of the MOS construction type capacitance element is connected to ground via said divisional capacitor C1 or C2.

Claim 3 (currently amended): A piezoelectric oscillator, wherein, in an inverter piezoelectric oscillator in which a piezoelectric resonator is connected between an input terminal and an output terminal of an inverter amplifier; and divisional capacitors C1 and C2 are connected between respective ends of the piezoelectric resonator and the ground, and wherein two MOS construction type capacitance elements are inserted respectively on both sides of the piezoelectric resonator; one end of each of the MOS construction type capacitance elements is applied with an alternating current voltage whose intermediate voltage is a V voltage; and the other end of each of the MOS construction type capacitance ~~element~~ elements is applied with a control voltage that varies within a range whose intermediate value is the V voltage.

Claim 4 (currently amended): A piezoelectric oscillator, wherein, in an inverter oscillator in which a piezoelectric element is connected to an input or output end of an inverter amplifier; and divisional capacitors C1 and C2 are connected between respective ends of the piezoelectric element and the ground, and wherein a MOS construction type capacitance element is inserted between the piezoelectric element and an input end of the inverter amplifier or between the piezoelectric element and an output end of the inverter amplifier; a control voltage Vcont is applied to the terminal on a connection-to-piezoelectric element side of the MOS construction type capacitance element; and, when it is assumed that V represents the positive (plus) or negative (minus) voltage that is a direct current bias voltage at the input end or output end of the inverter amplifier and that is applied to one end of the MOS construction type capacitance element and at least one terminal of the MOS construction type capacitance element is connected to ground via said divisional capacitor C1 or C2, it is arranged that said voltage becomes an intermediate voltage of the control voltage Vcont and of a same polarity as the control voltage Vcont.

Claim 5 (previously amended): A piezoelectric oscillator, wherein, in an inverter oscillator in which a piezoelectric element is connected to an input or output end of an inverter amplifier; and divisional capacitors C1 and C2 are connected between respective ends of the piezoelectric element and the ground, and wherein a MOS construction type capacitance element is inserted between the piezoelectric resonator and an input end of the inverter amplifier or between the piezoelectric resonator and an output end of the inverter amplifier; a control voltage Vcont is applied to the terminal on the connection-to-piezoelectric resonator side of the MOS construction type capacitance element; and a direct current circuit of a resistor and a capacitor is inserted and connected between the terminal on the inverter-amplifier side of the MOS construction type capacitance element and the input or output terminal of the inverter amplifier; and further a direct current bias voltage is applied to the terminal on the inverter-amplifier side of the MOS construction type capacitance element.

Claim 6 (previously amended): A piezoelectric oscillator according to claim 5, wherein the amplitude level of an alternating current supplied to the MOS construction type capacitance element is adjusted according to the value of the resistance of the direct current circuit; and when it is assumed that V represents the direct current bias voltage supplied to the terminal on the

inverter-amplifier side of the MOS construction type capacitance element, it is arranged that the direct current bias voltage V becomes an intermediate voltage of the control voltage Vcont.